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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/975,619 | 10/11/2001 | Takayuki Mito | MITO ET AL-2 | 8375 |

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EXAMINER

BOLDEN, ELIZABETH A

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
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1755

DATE MAILED: 06/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/975,619

Applicant(s)

MITO ET AL.

Examiner

Elizabeth A. Bolden

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Any rejections and or objections, made in the previous Office Action, and not repeated below, are hereby withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horiuchi et al., European Patent Application EP 855,731 A1, in view of Nishioka et al. Japanese Patent Publication 11-162361.

A machine-generated translation of Nishioka et al. accompanies the previous action. In reciting this rejection, the examiner will cite this translation.

Horiuchi et al. teach glass compositions for barrier ribs having overlapping ranges of components with instant claims 1-12. See page 6, lines 10-22 and 26-30, and page 14, lines 11-19. Overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05. Horiuchi et al. teach the addition of a filler to the glass having overlapping mass ratio ranges with instant claims 4, 8, and 12. See page 8, lines 15-16. Horiuchi et al. teach the same components as fillers as claims 1-3, 5-7, and 9-11. See page 8, lines 18-20.

Horiuchi et al. differs from the claims by not teaching the specific composition of the silica powder.

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Nishioka et al. teach a composition used to form the partitioning walls i.e. barrier ribs or septum, of a plasma display panel where 1-40 weight parts are an inorganic filler and 100 weight parts of a glass. See abstract of Nishioka et al. Nishioka et al. further teach the inorganic filler comprises two or more kinds of SiO_2 including fused silica, alpha-quartz, and cristobalite, a component to whiten the septum such as TiO_2 , and other mineral constituents such as Al_2O_3 . See paragraphs [0029-0031]. The mixture of two or more kinds of silicas controls the coefficient of thermal expansion and has desirable properties. See paragraphs [0013] and [0014]. The TiO_2 additions whiten the barrier rib. See paragraphs [0030] and [0031]. The Al_2O_3 additions suppressed sagging of the barrier rib.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed two or more kinds of silica in the barrier rib of Horiuchi et al. as suggested by Nishioka et al. because the resultant barrier rib would have an improved coefficient of thermal expansion and dielectric properties.

Moreover, it would have been obvious to one of ordinary skill in the art at the time the inventions was made to have added TiO_2 and Al_2O_3 to the barrier rib of Horiuchi et al. as suggested by Nishioka et al. because the resultant barrier rib would be white and not sag.

As to the amount of Al_2O_3 recited in the claims, Example 29 of Nishioka et al. shows that the inorganic filler contains 12 weight parts fused silica, 21 weight parts alpha-quartz, and Al_2O_3 . See Table 1 of Nishioka et al. If the amount of Al_2O_3 is at least 3.75 weight parts then the total weight parts of inorganic filler is 36.75 weight parts based on 100 weight parts glass. The inorganic filler would have a composition of 32.7 weight percent fused silica, 57.1 weight percent alpha-quartz, and 10.2 weight percent Al_2O_3 .

Response to Arguments

Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection. Applicants' arguments that pertain to the new rejections are addressed below.

Applicants Argue that Horiuchi et al. fails to disclose the claimed glass composition. This argument is not deemed persuasive because Horiuchi et al. teach glass compositions for barrier ribs having overlapping ranges of components with instant claims 1-12. See page 6, lines 10-22 and 26-30, and page 14, lines 11-19. Overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

Conclusion

The additional references cited on the 892 have been cited as art of interest since they are cumulative to or less than the art relied upon in the rejections above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Bolden whose telephone number is 703-305-0124. The examiner can normally be reached on 8:30am to 6:00 pm with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on 703-308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

EAB
May 30, 2003


DAVID SAMPLE
PRIMARY EXAMINER